

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)
) CC Docket No. 96-98
Implementation of the Local Competition)
Provisions in the Telecommunications Act)
of 1996)
)

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Comments of The Ericsson Corporation

The Ericsson Corporation on behalf of itself and its parent company LM Ericsson (collectively referred to herein as "Ericsson"), hereby submits its comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.¹ In support of its comments, Ericsson states as follows:

Ericsson is one of the largest manufacturers of telecommunications equipment in the world. Its Network Systems division, which manufactures switching and transmission equipment for use in a variety of different types of networks, has supplied equipment to RBOCs, IXC's, CAPS and wireless service providers in the U.S. The views expressed in this document are limited to those areas in which Ericsson believes its experience as a manufacturer may assist the Commission in this proceeding. Due to the comprehensive nature of the NPRM, Ericsson's comments will be provided in response to specific paragraphs of the document.

¹ *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, Notice of Proposed Rulemaking*, FCC 96-182, FCC Rcd ____ (released April 19, 1996) ("NPRM").

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1. Paragraph 30—Ericsson supports the Commission’s view that national rules implementing Section 251 can reduce costs and enhance the interoperability of networks and equipment. Uniform national rules are also likely to result in cost efficiencies for both incumbent LECs and new entrants. Furthermore, national rules will accelerate innovation of technology for network interconnection as long as such rules are established at the network element level. This will enable both incumbents and new carriers to develop creative ways to implement new services.

2. Paragraph 51—Specific uniform national rules for interconnection should be adopted by the Commission because such rules will encourage competition. This will occur through the creation of a level playing field as a result of adopting a common set of standards from which non-incumbent LECs can choose to offer discrete services. Stated another way, the absence of uniform national guidelines may create an environment in which some non-incumbent LECs are limited in the types of services that can be provided since they may not have the same “technical” opportunities as others.

3. Paragraphs 77 & 79—Ericsson supports the Commission’s tentative conclusion to identify a minimum set of network elements that incumbent LECs must unbundle since, as noted above, that will have a tendency to promote competition. Ericsson also believes it is technically feasible to identify a minimum set of network elements in a generic manner. Attached hereto as Appendix I is a conceptual network model which Ericsson suggests can be used to define the various network elements that

should be unbundled.² Ericsson's conceptual network model includes some network elements not present in presentations made to the Commission by AT&T and MCI.³

Ericsson also supports the general view that the Commission should establish minimum requirements governing the unbundling of network elements. Unless the Commission establishes minimum requirements, non-incumbent LECs who wish to use unbundled elements may not have the flexibility envisioned by the Telecommunications Act of 1996. Ultimately, consumers may be deprived of the full panoply of telecommunications services which can possibly be offered since they will be tied to the underlying carrier's specific service set.

4. Paragraphs 83-85—Ericsson supports the definition which describes a network element as a “facility or equipment used in the provision of telecommunications services as well as features, functions and capabilities that are provided by means of such facility or equipment.” This definition tracks the normal procurement process followed today between network operators and their vendors. Ericsson is also of the view that the definition of “network element” must not be so rigid that it can not be modified. Networks have been evolving at a rapid rate and this trend is likely to accelerate in the future.

With regard to the distinction between the facility or equipment used in the provision of a service and the service itself, Ericsson's view is that a “service” can be

² It should be noted that unbundling at this level is “logical” unbundling not physical unbundling. Logical unbundling will provide new entrants with the elements they desire without causing manufacturers to engage in costly and time consuming re-design of network equipment. A requirement for physical unbundling of network elements would be counter productive to cost-efficient provision of competitive services.

³ Ericsson's model is not offered as being better than those presented by AT&T or MCI but rather to demonstrate that there are other network elements which can be unbundled.

delivered to an end user. The facility or equipment is the means by which a carrier provides the service. Thus, notwithstanding the fact that a carrier may have access to all network elements or facilities necessary to deliver a service, the carrier must combine the facilities or elements and “create” a service which is deliverable to end users.

5. Paragraphs 86 & 87—Ericsson agrees with the Commission’s interpretation of the phrase “access to network elements on an unbundled basis” as used in Section 251(c)(3) of the 1996 Act. However, Ericsson also notes that the term “network elements” is subject to various interpretations. For example, while most would agree that “local loop” is a network element that should be offered on an unbundled basis, it is not clear that other “elements” such as line range extenders, central office-based circuit testers and automated loop testers which are used to support or enhance the local loop, are viewed in a similar manner. In addition, the feasibility of interconnecting at any point in a network should not be a pure technical decision. Rather, economic considerations should be taken into consideration.

6. Paragraphs 96 & 97—With regard to the issue of how the Commission might structure national requirements to provide sufficient flexibility for the use of different or new loop technologies or services, Ericsson proposes that loop equipment can and should be separated into passive and active equipment categories. Passive loop equipment, such as medium-copper and fiber transmission equipment, is already heavily standardized and thus should be unbundled on a national basis immediately. Active loop equipment, such as channel banks and remote terminal equipment, is often proprietary in nature. In order for vendors to have sufficient time to modify their equipment to create end-to-end network compatibility on a national basis, some amount of time should be allowed before

manufacturers are required to comply with FCC guidelines. The same is true with respect to proprietary software which may have to be changed to meet new requirements adopted by the FCC. Depending on the nature of the requirements adopted, Ericsson's view is that manufacturers may need 18 months to 2 years to meet newly adopted requirements of the FCC. In addition, the FCC must allow manufacturers sufficient time to test equipment and/or software to ensure the operational requirements are met and adequate safety and security can be assured.

7. Paragraph 101—The term “port” has many interpretations in the industry and, accordingly, must be carefully defined in the context of this proceeding. For example, in addition to the definition referred to in paragraph 101 of the NPRM, a port can be defined as a termination on the switching matrix to which a transmission circuit is normally connected. In some circumstances ports can not be unbundled since functionally the port is not a separate element but rather an interface to a network element.

8. Paragraph 107—Ericsson fully agrees with the Commission's conclusion that requiring LECs to unbundle their signaling systems and databases is consistent with the 1996 Act. Signaling systems and databases are vital to the process of creating services. Signaling systems and databases constitute an additional resource of the telecommunications network and as such must be provisioned on the basis of capacity calculation.

9. Paragraphs 109-114

The use of signaling systems and databases is highly dependent on the services to be implemented. Having the experience of creating and implementing a variety of Intelligent Network (“IN”) based services for a large number of customers, Ericsson

believes that services to be implemented must be identified by the third party provider in the first instance. Then the incumbent LEC and the new service provider must ensure that the necessary signaling protocols and resources are available. The same philosophy would apply to databases. It is critical to establish in advance that sufficient signaling and database resources are available.

Allowing competitors to connect their own call processing databases to an incumbent LEC's database is an attractive concept which might increase competition. Nonetheless, there are a number of rather complex technical issues which will have to be addressed before such a scheme becomes feasible including but not limited to, billing and service interaction issues

With regard to IN services, current implementation of IN-based services uses both conventional switching systems (Class 5 and others) as well as nodes such as the SCP, STP and others. Creation and implementation of new IN-based services by an outside third party could conceivably have an adverse impact on the performance of Class 5 switches, either in terms of adverse feature interactions or switch performance. Ericsson believes a test and verification program is necessary to ensure compatibility and security in the network.

Merely unbundling databases and signaling elements is not likely to result in a third party's ability to create and offer competing services. The process of service creation also requires the third party to have access to a service creation mechanism and a service management and administration tool ("SMAS")⁴

⁴ Ericsson's SMAS, which is built on a unique platform, is known as Telecommunications Management and Operations Support ("TMOS").

Additionally, the Class 5 office (SSP) must be able to communicate with the various elements such as the SCP and other databases in order to execute the newly created service. The creation of new services through INs and offering them to subscribers is further complicated by the wide variety of elements offered by a large number of vendors. It is important for the incumbent LECs and new service providers to devise a testing and verification process to ensure the integrity of the network and interoperability between new services and the LECs network.

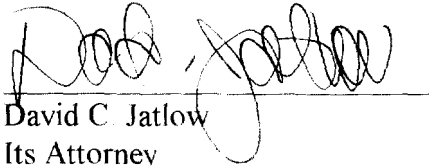
10. Paragraph 263—In order to achieve the goals of Section 706(a) of the 1996 Act in the context of Sections 251 and 252, Ericsson believes that industry must work closely with government agencies to promote leading edge technologies which are technically feasible and which can be introduced on a reasonably timely basis.

Technologies such as “plug and play Internet use” will greatly help the general public and schools access and exchange information in an open environment. Encryption and authentication techniques will be offered to protect the privacy of communications from unauthorized parties. It is necessary to adopt national rules for network security and

security management of public key encryption. Through industry/agency collaboration, advanced technologies such as ATM, wireless data/video, and AIN will enhance the interconnection capabilities of public and private networks.

Respectfully submitted,

The Ericsson Corporation

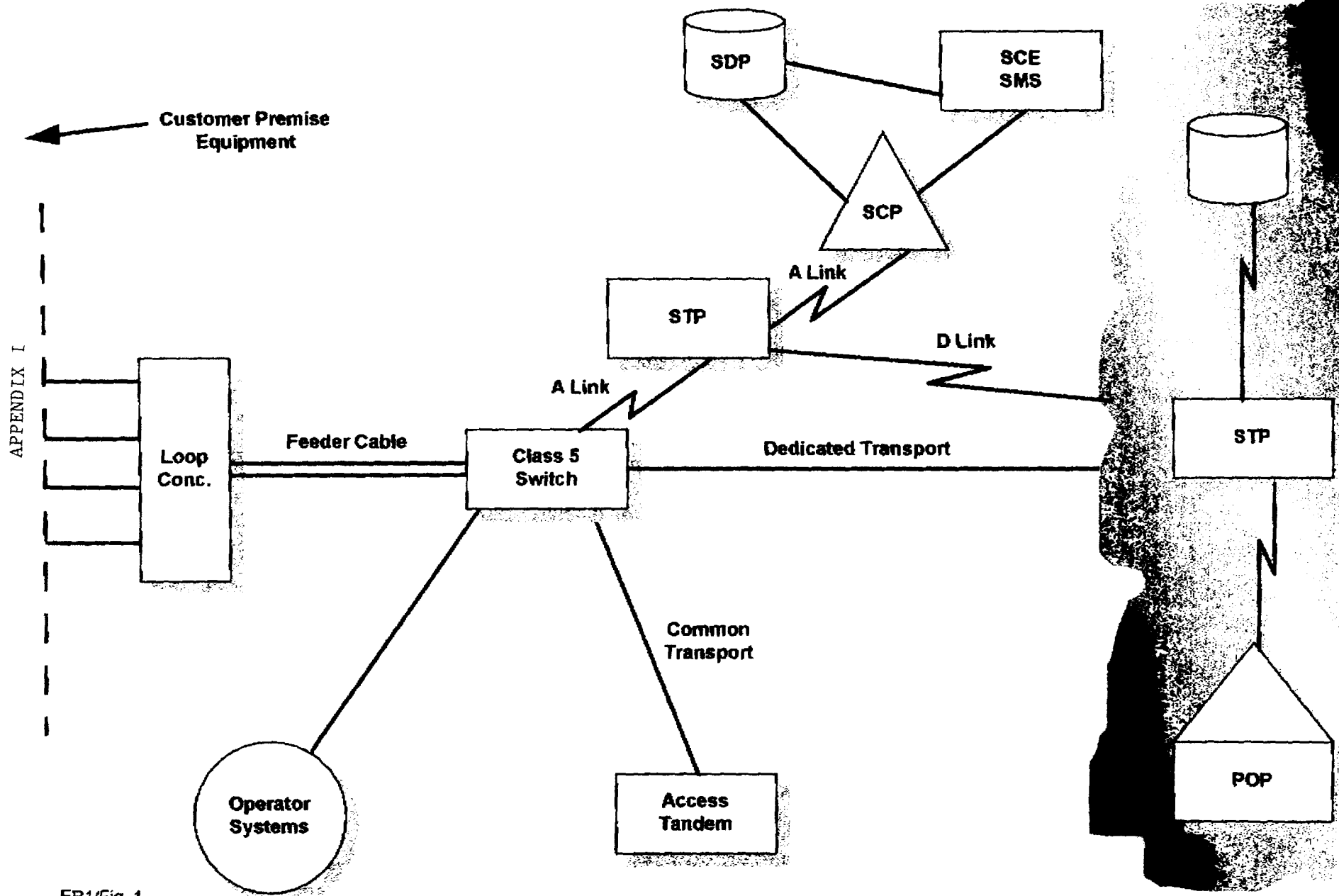


David C. Jatlow
Its Attorney

Young & Jatlow
Suite 600
2300 N Street, N.W.
Washington, D.C. 20036
(202) 663-9080

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Unbundled Elements Surrounding a Local Switch



ER1/Fig. 1